

## INDUSTRY 4.0 ASSESSMENT HELPS CJ BIO START SMART WITH TECH UPGRADES. A FORT DODGE FEED INGREDIENTS COMPANY EXPECTS TO SAVE MILLIONS OF DOLLARS BY IMPLEMENTING TECHNOLOGY UPGRADES IDENTIFIED THROUGH A

**ABOUT CJ BIO AMERICA.** CJ Bio America is a process manufacturer located in Fort Dodge, Iowa. This location, founded in 2011, manufactures amino acids for livestock and poultry feed and is a component of the larger global company and currently employs 170 people. Globally, CJ Bio is a diverse company with assets in food, biotechnology, entertainment and media and retail and logistics.

**THE CHALLENGE.** CJ Bio, which produces amino acids for livestock and poultry feed, wanted to find new ways for technological enhancements to impact the bottom line. For help, the company turned to CIRAS, part of the MEP National Network™.

**MEP CENTER'S ROLE.** CIRAS made a plan to reassess CJ Bio's current use of technology in its business and outlined a path forward. An assessment performed in the fall of 2020 involved several hours of CIRAS observing CJ Bio processes. That was followed by a CIRAS presentation on various technologies making up Industry 4.0. Industry 4.0 is a term used to describe society's fourth industrial revolution—the point where all equipment and processes in a manufacturing setup are interconnected, where data are continuously gathered via sensors, analyzed by computer models, and used to optimize processes on the fly. Then, people from throughout the company met in groups to develop improvement ideas. Finally, the entire group created a ranked list of places to start and developed a business case for each project.

The company's initial priorities include automating some of the sampling and testing required during its production process and overhauling the way it handles bulk material waiting to be shipped. CIRAS "allowed us the melting pot we needed" to make smart choices, CJ Bio Operations Manager Luke Palmer said. "They just had some really interesting tools to facilitate the discussion."

"What the Industry 4.0 process did was allow us to take experts from our various departments and get them all together to make a decision," said Palmer. "It's sometimes too big of a beast to manage unless you make an effort to pull everyone together and have an outside party help you assess everything."

"The workshops were well designed to elicit free thought in an open forum. Thoughts were then refined and more specific group activities forced additional thought and explanation. There were some ideas that will be implemented this year. Others will be implemented as capital is made available."

-Luke Palmer, Senior Operations Manager

## RESULTS



2 jobs created



\$10,000,000 in cost savings



\$960,000 in retained sales



\$360,000 in new products/processes, plant/equipment, info systems, workforce

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